**IT Applications Unit 3, AOS 1, Online Communities**

1. Complete the following, from pgs, 18-28: **Network hardware and software**

**Networks are classified according to below and we will study the following:**

1. **Network Categories: LAN, WAN**
2. **Network Architecture, client-server; peer-to-peer; internet peer-to-peer; intranet**
3. **Network communication standards**
4. **Network hardware and software**
5. **Transmission media**
6. **Network security**

**Network hardware and software**

**Network Operating systems**

1. Describe the role of the network operating system.

The network operating system is software that controls traffic on the network and defines how devices will communicate with each other.

1. What are the typical tasks of network server software?

The typical task of the network server software such as controlling file access, managing print queues, keeping track of users though their UserIDs and passwords, authenticating access to network to network servers and maintaining a log of network usage.

1. What is the role of network client software?

It establishes a connection, thought the interface card, between the workstation and other devices on the network.

1. List the 3 providers of network operating systems.

* Microsoft
* Novell
* Apple

**Web client software**

1. List the typical client software

* Web browser
* Electronic mail
* Video conferencing
* Instant messaging
* Chat room

**Software for setting up websites**

1. Describe the role of http protocol.

It is a standard uses for transmitting and receiving information on the internet.

1. What is the role of web server software?

Web server software provides content using the http protocol.

1. What is the role of a proxy server?

To store pages that have already been loaded on the client.

* 1. What are the advantages of using a proxy server?

Quicker access to web pages and they can also be used to block certain webpage.

1. Describe the role of the following software:
   1. SMTP

Simple mail transfer protocol is used on electronic mail servers to handle the sending and receiving of client emails.

* 1. POP3

A post office protocol server is used to store messages.

* 1. FTP

File transfer protocol software enables the uploading and downloading of files between the computers on the internet.

* 1. Web software applications

Web software applications are programs designed for use on a website and include blogging software, forms and wikis.

**Cross-platform web software**

1. What is meant by a Cross-platform application? List egs.

Cross-platform application uses an execution engine and compiler with libraries so that it runs identically on all machines. Eg software application used creating websites are Flash and Java.

1. What is adobe flash?

Is a software tool that enables websites developers to combine interactive content with text, three-dimensional graphics, audio and video.

**Network Hardware**

Describe the characteristics and role of the following network hardware devices:

1. Network interface card

NIC is a card used to link computers or resource to a network.

1. Wireless access point

AP is used to connect wireless communications devices to wired or wireless network.

1. Switches

A switch is a device that stores the address of every device down each wire leading from the switch.

1. Routers

A router is a communication device that allows several remote LANs to connect over a WAN, or to join a number of LANs into a bigger LAN.

1. modems

a modem is a device that is used to send a computer’s digital signal over a telephone line.

For each of the following modem types, in a table indicate the following:

Modem download speed

i) dial up modem

ii) digital modems:

* + 1. DSL
    2. ADSL & ADSL 2 +

iii) cable modems

|  |  |
| --- | --- |
| Modem | Download speed |
| Dial up modem | 56 kbps |
| Digital modem :DSL | 1.5 mbps |
| Digital modem: ADSL & ADSL 2 | 8-20 mbps |
| Cable modems | 30 mbps |

1. How does a digital modem differ from a dial-up modem?

* speed
* Voice and data uses at the same time.